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Respectfully submitted,

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APPENDIX TO PRELIMINARY AMENDMENT OF FEBRUARY 25, 2002

Admendment to lines 21-29 on page 30, and lines 1-16 on page 31

Depending upon the particular solid receiving phase chosen and the pre-treatment applied to it before use, it is possible for the device to be custom-adapted for monitoring one or more analytes at a time. Hence, the solid receiving phase may comprise a chromatographic and/or chelating phase that has been treated with an agent for complexing or chelating the chosen analyte(s), such as metallic species. For example, if C_{18} or C_8 disks are used in different matrixes (PTFE, glass fibre) together with a photometric reagent (*eg* bathocuproine or 1,5-diphenylcarbohydrazide) [[is this correct, or should it be diphenylcarbazide?)], it is possible to collect specific metal species (*eg* Cu(I), Cr(VI), respectively). Normally, it is difficult to detect low concentrations of such species with only the photometric reagent bathocuproine, but together with pre-concentration of the metal complexed to a photometric reagent on a C_8 or a C_{18} disk, it is possible (as described by Björklund and Morrison *ibid*). The possibility of having the photometric reagent immobilised on the disk in advance of deployment or to have it directly equilibrated in the sample is also an advantage. Examples of photometric reagents that can be used are bathocuproine, methylthymol blue, xylenol orange, glycine cresol red, binchinonic acid, diphenylcarbazide and 1,5-diphenyl carbohydrazide.

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Amendment to lines 9-25 on page 35, and lines 1-6 on page 31.

A range of membrane materials with very different chemical characteristics and physical properties is available for evaluation with regard to their suitability as diffusion-limiting membranes for selected micropollutants in the passive sampling system. A membrane material is required which allows the rapid diffusion of the micropollutant, *e.g.* small, organic molecules, through either the matrix of the membrane and/or its small pores into the receiving phase of the device. It should also have a low affinity for the micropollutants for which the device is to be calibrated, so that pollutants do not accumulate within the membrane material rather than passing through to the chosen receiving phase. In addition to its diffusional properties, physical robustness and ability to resist bacterial attack should be taken into consideration, as they can be important characteristics of the chosen membrane material in cases where the device is to be deployed in harsh environmental conditions. Examples of suitable membranes for the collection of organic analytes include hydrophilic or hydrophobic polymer materials having a pore size in the range of from about 0.1 [mm] μm to 2 [mm] μm, such as those listed below in Table 1.

Amendment to lines 3-6 and lines 9-13 on page 39.

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characterised in that the receiving phase comprises an immobilised solid phase material, and the diffusion-limiting membrane comprises pores traversing the membrane and having a diameter in the range of from 0.1 to 10 [mm] μm.

Preferably, the pores have a diameter in the range of from 0.1 to 1 [mm] μm, especially about 0.1 to 0.2 [mm] μm. Suitable membranes for polar, organic pollutants include polymers such as polysulphone, polycarbonate, cellulose dialysis membrane, PTFE and PVDF, and glass fibre.

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